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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/21/2006

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EXAMINER

BORISSOV, IGOR N

ART UNIT

PAPER NUMBER

3628

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,368	Applicant(s) GJERDE ET AL.	
	Examiner IGOR BORISSOV	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-36 and 39-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-36 and 39-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amendment received on 10/22/2009 is acknowledged and entered. Claims 9, 37 and 38 have been cancelled. Claims 1, 20, 34, 36, 39-42 have been amended. New claim 47 has been added. Claims 1-8, 10-36 and 39-47 are currently pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 36, 40 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 36 and 40, it is totally unclear what is being claimed here. Are claims 36 and 40 directed to a data signal (in a carrier wave)? Are the claims directed to a method as the body of the claims may suggest, or intended use of a system? The signal represents instructions, but what is the signal? The fact that it represents instructions that do A, B, and C, defines nothing about the signal. Maybe this is supposed to be a method claim? The scope of this claim is not clear.

Claim 41 is confusing, because it is not clear which part of the claim represents known features of the prior art or states intended use of the invention, and which recites novel features of the invention. The claim is not in compliance with MPEP 608.01(i), which states that a preamble should be separated from a body of a claim by a term "comprising". Accordingly, the claim is vague and indefinite, it is unclear which part of the claim specifies the known limitations or general description of all elements of the

Art Unit: 3628

claim, and which part constitutes new elements which Applicant considers as the new or improved portion.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 36 and 39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claim 36, the examiner has concluded that the claim is directed to non-statutory subject matter because a "signal" is not considered statutory. A signal (in a carrier wave) is not a tangible thing. A signal is not something that is eligible for patent rights, because a propagating signal is not a "process, machine, manufacture, or composition of matter." Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. §101; thus, such a signal cannot be patentable subject matter. The Supreme Court has established that claims including physical but transitory forms of signal transmission such as radio broadcasts, electrical signals through a wire, and light pulses through a fiber-optic cable (so long as those transmissions convey information encoded in the manner disclosed and claimed by Nuijten) are not directed to statutory subject matter so a signal per se is still non-statutory. See *In re. Nuijten*, 84 USPQ2d 1495 and the rationale therein. Limitations recited in claim 39 do not cure § 101 issue, and, therefore, rejected on the same basis.

Deleted: ¶

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3628

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-24, 26-36, and 40-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (US 5,572,438) in view of Whyte et al. (4,199,761) and further in view of Applicant Admission and NRSC, Setting Standards for the Future of Radio.

Ehlers teaches a method for automatic management of demand for non-durables, said method comprising:

Claims 1, 20, 34, 36, 40-42,

providing at End-users' premises specialized electronic boxes (C. 8, L. 12-18; C. 9, L. 42), having microprocessor capability for performing the following functions:

receiving broadcast control signals from a Multi Utility provider (C. 25, L. 9-10, 16-17),

End-users programming said boxes by setting parameter values in accordance with End-users' priorities (C. 10, L. 28-30),

broadcasting from a Multi Utility provider a control signal to be received by said boxes (C. 12, L. 17-18),

said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and information provided by said control signal (C. 13, L. 41-59); wherein said electronic boxes comprising a metering gateway transmitting back to said Multi Utility provider, through a telephone or mobile telephone network, instant or semi-instant non-durable consumption values measured at said End-users' premises by said electronic boxes (C. 15, L. 3-13).

Ehlers does not explicitly teach determining whether information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings satisfies a condition for any connected non-durable consuming apparatus

Art Unit: 3628

to be switched on, and if so, turning connected non-durable consuming apparatuses on, if not, turning connected non-durable consuming apparatuses off.

However, Ehlers teaches calculating a status flag of each device on the system, checking the status flag and generating a command to restore power to the load, said status flag is changed whether the load is in ON or OFF condition, wherein said status flag is changed, also, during a timed event (C. 25, L. 32-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ehlers to include calculating whether ON or OFF constitutes a correct condition for any connected non-durable consuming apparatus, on the basis of information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings, turning connected non-durable consuming apparatuses on and off in accordance with the results of said calculating, as suggested in Ehlers, because it would advantageously prevent the load from being turned on when the load shedding operation was initiated by the power utility, as specifically stated in Ehlers (C. 25, L. 37-41).

Also, while Ehlers teaches that the utility company can communicate with said electronic boxes over the radio (C. 4, L. 18), Ehler does not explicitly teach transmitting at least one radio broadcast control signal which radio broadcast control signal is received by said radio receiver in all said electronic boxes; wherein said Multi Utility provider broadcasts the control signal via at least one radio broadcasting station utilizing any one of the RDS, RBDS and DAB systems.

Whyte et al. (Whyte) discloses a method for multichannel radio communication system, wherein VHF-FM commercial broadcast stations provide readily available transmitter sources to link remote terminals at electric power customer locations with a central station/utility company utilizing tone signals. In use the broadcast station receives base-band binary data signals from the central control station of an electric power distribution system, said data signals are intended for signaling one or more command or control functions to energy management terminals at a plurality of end users remote locations to be controlled and monitored, such as turning on or off end

Art Unit: 3628

users' appliances like water heaters and A/C equipment (C. 2, L. 35-68; C. 4, L. 24-30; C. 5, L. 55-60; C. 6, L. 4-15; C. 7, L. 3-8).

It would have been prima face obvious to one having ordinary skill in the art at the time the invention was made to modify Ehler to include transmitting at least one radio broadcast control signal which radio broadcast control signal is received by said radio receiver in all said electronic boxes, as disclosed in Whyte, because it would allow to implement said arrangement in the existing systems without network disruption, thereby minimizing cost. Furthermore, it would have been prima face obvious to one having ordinary skill in the art at the time the invention was made to modify Ehler to include transmitting at least one radio broadcast control signal which radio broadcast control signal is received by said radio receiver in all said electronic boxes, as disclosed in Whyte, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable. *KSR*, 127 S.Ct. at 1740, 82 USPQ2d at 1396.

The combination of Ehler and Whyte does not explicitly teach that said broadcasting station utilizing any one of the RDS, RBDS and DAB systems.

However, as Applicant admitted, "Radio transmitters that utilize RDS, RBDS and/or DAB technique is known as such". (See: Applicant Arguments/Remarks Made in an Amendment of 10/22/2009, page 13, lines 8-9). For example, in 1998, the National Radio Systems Committee approved a revised edition of the United States Radio Broadcast Data System (RBDS) Standard. The National Radio Systems Committee (NRSC) is jointly sponsored by the National Association of Broadcasters (NAB) and the Consumer Electronics Association (CEA). Its purpose is to study and make recommendations for technical standards that relate to radio broadcasting and the reception of radio broadcast signals. It is also noted that US RBDS Standard is based largely on the European RDS Standard, the latest version of which was published by the European Committee for Electrotechnical Standardization in 1998 (See: NRSC, Setting Standards for the Future of Radio (NRSC)).

Art Unit: 3628

Accordingly, it would have been prima face obvious to one having ordinary skill in the art at the time the invention was made to modify the combination to include that said Multi Utility provider broadcasts the control signal via at least one radio broadcasting station utilizing any one of the RDS, RBDS and DAB systems, as disclosed in NRSC and admitted by Applicant, because it would advantageously allow to operate in accordance with US RBDS Standard.

Claim 2. The method of claim 1, wherein said End-users set parameter values in accordance with estimated importance (priority) of their various apparatuses (Ehlers; C. 12, L. 32-33; C. 29, L. 59-63).

Claim 3. The method of claim 1, wherein said End-users set parameter values based on pricing of the non-durables (Ehlers; C. 12, L. 17-18).

Claim 4. The method of claim 1, wherein said Multi Utility provider broadcasts a control signal containing pricing information regarding said non-durables (Ehlers; C. 12, L. 2-18; C. 15, L. 7-8).

Claim 5. The method of claim 1, wherein said End-users set parameter values based on pricing of the non-durables (Ehlers; C. 12, L. 17-18).

Claim 6. The method of claim 1, wherein said Multi utility provider broadcasts a control signal containing information regarding rationing (Ehlers; C. 3, L. 18-22).

Clam 7. The method of claim 1, wherein said Multi Utility provider provides at least one of electrical energy, thermal energy, gas and freshwater to a community of End-users (Ehlers; C. 15, L. 7-8).

Claim 8. The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via at least one commercial radio broadcasting station (Whyte; C. 3, L. 7-9; C. 9, L. 26-32).

Claim 10. The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via a satellite radio broadcast system (use of TV suggests satellite communication).

Claim 11. The method of claim 1, wherein said boxes transmit back consumption values via any of a telephone network and a mobile telephone network (Ehlers; C. 15, L. 12).

Claim 12. The method of claim 1, wherein communication between said electronic boxes and said non-durable consuming apparatuses inside said End-users' premises is effected by use of PLC technology, preferably in accordance with an X10 standard (Ehlers; C. 15, L. 14).

Claim 13. The method of claim 1, wherein any one of said electronic boxes is physically or functionally divided in an intelligent home gateway and a metering gateway, said intelligent home gateway receiving said control signals, decoding them, determining ON and OFF conditions for all connected apparatuses and transmitting turn-off and turn-on commands to bring said apparatuses into the determined condition, while also communicating with said metering gateway, and said metering gateway performing two-way communication with said intelligent home gateway, performing communication with at least one non-durables metering device, and transmitting at least metering data to said Multi Utility provider (same reasoning as applied to claim 1).

Claim 14. The method of claim 13, wherein said intelligent home gateway transmits commands for turning connected apparatuses in an End-user's premises off

Art Unit: 3628

and on, via a Power Line Carrier (PLC) system, preferably an X10 system (Ehlers; C. 5, L. 22).

Claim 15. The method of claim 13, wherein said intelligent home gateway turns off connected apparatuses in an End-user's premises in accordance with non-durable price thresholds set by the End-user for respective apparatuses or for respective apparatus groups (see reasoning applied to claim 1).

Claim 16. The method of claim 13, wherein said intelligent home gateway turns off connected apparatuses in an End-user's premises in accordance with a rationing command from said Multi Utility provider and non-durable consuming apparatus priority settings entered by the End-user (Ehlers; C. 3, L. 18-22 and reasoning applied to claim 1).

Claim 17. The method of claim 1, wherein non-durables production in distributed generation units (DG) attached to any of industrial End-users, commercial End-users and groups/communities of private End-users, is governed by said electronic boxes and in accordance with the End-users' settings and priorities (See reasoning applied to claim 1).

Claim 18. (New) The method of claim 17, wherein a distributed generation unit (DG) attached to a group/community of private End-users is governed by an algorithm taking all said private End-users' settings and priorities into consideration, said algorithm being stored in a computer memory in a computer dedicated for controlling said distributed generation unit and being in communication with said electronic boxes (See reasoning applied to claim 1).

Claim 19. The method of claim 1, wherein service restoration from said Multi Utility provider after an outage situation is effected by broadcasting restoration signals

Art Unit: 3628

to bring about step-wise turning on loads at End-users' premises by appropriate action by said electronic boxes (Ehlers; C. 25, L. 16-20).

Claims 21-24, 26-33, 35, and 47, see reasoning applied above.

Claims 43 and 45. The method of claim 1, wherein said method further comprises the step of: providing to the End-users prices in real time (Ehlers; C. 15, L. 7-8; C. 32, L. 46-48).

Claims 44 and 46. The method of claim 1, wherein said method further comprises the step of: said boxes transmitting back to said Multi Utility provider instant or semi-instant non-durable consumption values at said End-users' premises (Ehlers; C. 15, L. 9-11), thereby collectively influencing market pricing of said non-durables (Ehlers; C. 32, L. 46-55).

Claims 25 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (US 5,572,438) in view of Whyte et al. further in view of Applicant Admission and NRSC and further in view of Ehlers et al. (US 2004/0117330 A1).

Claims 25 and 39. The combination of Ehlers '438, Whyte, Applicant Admission and NRSC teaches all the limitations of claims 25 and 29, except that said broadcasting network includes microprocessor capability for encrypting data to be broadcast to End-users.

Ehlers '330 teaches a method and system for controlling usage of a commodity, wherein data communicated between end users and utility provider is encrypted [0302].

In this case each of the elements of the cited references combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results. See Sakraida, 425 U.S. at 282, 189 USPQ at 453. Therefore, Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* (KSR, 82 USPQ2d at 1396) forecloses the argument that a specific

Art Unit: 3628

teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision *Ex arte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007).

Response to Arguments

Applicant's arguments filed 10/22/2009 have been fully considered but they are not persuasive.

Regarding claim 36, the examiner maintains his position because the term "control signal" is confusing, and does not provide clear understanding of what is being claimed here. The signal may reflect instructions, but what is the signal? Accordingly, the scope of this claim is not clear.

Regarding claim 41, the claim is vague and indefinite, because it is not clear which part of the claim represents known features of the prior art or states intended use of the invention, and which recites novel features of the invention.

In response to applicant's argument that Ehlers fails to teach end-users programming said boxes by setting parameter values in accordance with End-users' priorities, the examiner stipulates that Ehlers discloses said feature at C. 10, L. 13-30.

In response to applicant's argument that Ehlers fails to teach that said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and information provided by said control signal, it is noted that Ehlers teaches that in accordance with an algorithm, screens are presented to the customer on the display of second microcomputer 22 for entering parameter values (C. 13, L. 41-59), and the

Art Unit: 3628

automatic turn-off or turn-on action is conducted following receiving the broadcasted control signal (C. 25, L. 9-10).

The remaining Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Art Unit: 3628

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Igor N. Borissov/

Primary Examiner, Art Unit 3628

05/23/2010